

THE JOHNS HOPKINS UNIVERSITY

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DEPARTMENT OF BIOLOGY

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Professor Henry Margenau
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Dear Professor Margenau

I will answer your questions in order as follows:

1. Religion -- or I should say, the religions of the world -- are a natural outgrowth of man's need for some answer, however mystical, to his concerns about existence, behavior, and morality. Science is quite a separate subject, and deals with man's eternal curiosity about how the world and the universe are constructed and the laws that operate physically.
2. I cannot help but believe the conclusions that grow out of the Penzias-Wilson experiments and other work on the Big Bang. Since we exist (I presume) there must have been a beginning and, scientifically, this appears to have occurred something like 20 billion years ago. The moment of the Big Bang included the built-in galaxy of physical laws that have inevitably led to the universe as we see it now.
3. The origin of life, it seems to me, was an inevitable consequence of the evolution of the universe speaking physically. There came a time when a combination of elements, heat, water, and who knows what else led to the formation of a living thing -- that is, an object that could reproduce and could be susceptible to mutation and selection in the Darwinian sense.
4. Like all other living things, homo sapiens, in my view, developed from lower forms by the generally accepted processes of mutation and selection. Indeed, even the Vatican appears to be happy about man's descent from lower forms of life.
5. Science and the scientist should continue to approach the questions of origin as is now being done by studying more and more primitive organisms such as the archae bacteria and other forms of life that perhaps resemble the original reproducing forms.


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6. I think only an idiot can be an athiest. We must admit that there exists an incomprehensible power or force with limitless foresight and knowledge that started the whole universe going in the first place. Such a process may have occurred many times earlier and, indeed, must have, and will very likely occur again in the future. I enclose a favorite quotation from Einstein that agrees almost completely with my own point of view.

I look forward to seeing what comes out of your culling of individuals who profess to have some serious ideas about these questions.

Sincerely yours,


Christian B. Anfinsen
Professor of Biology

CBA:djh